

# IMPACT ASSESSMENT OF THE NEW JERSEY INTERIM STATE DEVELOPMENT AND REDEVELOPMENT PLAN

## REPORT II: RESEARCH FINDINGS

### REPORT II: RESEARCH FINDINGS— THE ANALYSIS OF TREND AND IPLAN

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28 February 1992

# TABLE OF CONTENTS

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	<i>Page</i>
<b>IMPACT ASSESSMENT RESPONSIBILITIES .....</b>	<b>i</b>
<b>EXECUTIVE SUMMARY.....</b>	<b>v</b>
<b>INTRODUCTION .....</b>	<b>1</b>
<b>IMPACT ASSESSMENT ISSUES.....</b>	<b>7</b>
<b>RESEARCH FINDINGS: THE ANALYSIS OF TREND AND IPLAN</b>	
<b>Section 1 — Economic Assessment.....</b>	<b>17</b>
<b>Part I — Overall Economic Conditions.....</b>	<b>21</b>
<b>Part II — Economic Impacts of Projected Growth.....</b>	<b>49</b>
<b>Part III — Fiscal Impacts of Projected Growth.....</b>	<b>65</b>
<b>Section 2 — Environmental Assessment.....</b>	<b>87</b>
<b>Part I — Impacts on Land Capacity.....</b>	<b>91</b>
<b>Part II — Impacts on Frail Environmental Lands .....</b>	<b>107</b>
<b>Part III — Impacts on Agricultural Lands.....</b>	<b>121</b>
<b>Part IVA — Impacts on Air Pollution.....</b>	<b>137</b>
<b>Part IVB — Impacts on Water Pollution .....</b>	<b>155</b>
<b>Section 3 — Infrastructure Assessment .....</b>	<b>169</b>
<b>Part IA — Impacts on Road Infrastructure .....</b>	<b>171</b>
<b>Part IB — Impacts on Transit Infrastructure.....</b>	<b>185</b>
<b>Part IIA — Impacts on Water and Sewer Infrastructure Demand.....</b>	<b>203</b>
<b>Part IIB — Impacts on Water and Sewer                   Infrastructure Costs .....</b>	<b>215</b>
<b>Part III — Impacts on School Capital Facilities.....</b>	<b>231</b>
<b>Section 4 — Community Life Assessment.....</b>	<b>251</b>
<b>Part I — Impacts on Quality of Community Life .....</b>	<b>255</b>
<b>Part II — Impacts on Housing Demand, Supply, and Cost .....</b>	<b>269</b>
<b>Section 5 — Intergovernmental Coordination Assessment.....</b>	<b>297</b>
<b>Part I — Impacts on Intergovernmental Coordination.....</b>	<b>301</b>
<b>SELECTED REFERENCES .....</b>	<b>319</b>

# **INTRODUCTION**

## BACKGROUND

The New Jersey Interim State Development and Redevelopment Plan (IPLAN) was approved on July 12, 1991 by the State Planning Commission. Established by the State Planning Act of 1986,<sup>1</sup> the Commission is a seventeen-member body made up of seven state cabinet-level officials and ten outside members. It is charged with devising an overall Plan for New Jersey.<sup>2</sup>

The Interim State Development and Redevelopment Plan is the manifestation of this obligation and, as well, is the product of the second phase of a three-phase Cross-acceptance process in New Jersey. This process ensures that governments at all levels and the public participate in adopting the State Plan.

The first phase of the Cross-acceptance process—comparison—has been completed. The second phase—negotiation—is under way and will be completed prior to the amendment of the Interim Plan. The third phase—issue resolution—will begin with the release of the Amended Interim Plan, as provided for by a recent amendment to the Cross-acceptance Rule.<sup>3</sup>

The *Impact Assessment* is an evaluation of the economic, environmental, infrastructure, community life, and intergovernmental coordination impacts of the Interim Plan.<sup>4</sup> The evaluation of the Interim Plan is in relation to the potential impacts of a continuation of present trends (TREND). The Impact Assessment of the New Jersey Interim State Plan is being undertaken during the negotiation phase. Thus, initial models of analysis will be readjusted and adapted, if necessary, as more detailed information arrives from this middle phase of Cross-acceptance.

## OVERVIEW

This report contains the Impact Assessment of the New Jersey Interim State Development and Redevelopment Plan. It is the culmination of a year's effort at model-building to recreate the State's growth patterns and evaluate how they may be altered as a result of the implementation of a State Plan. It is further the result of the coordinated efforts of research team members who have, in most instances, undertaken similar targeted

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<sup>1</sup> P.L. 1985, C.222, N.J.S.A. 52:18A-196, *et seq.*

<sup>2</sup> N.J.S.A. 52:18A-199a.

<sup>3</sup> The primary difference between the Interim Plan and the Amended Interim Plan is that corrective feedback from the Impact Assessment will be used to adjust the Interim Plan before it becomes the Amended Interim Plan.

<sup>4</sup> N.J.S.A. 52:18A-202.1g.

evaluations in their own areas of expertise elsewhere and have used and refined these tools of evaluation over an extended period of time. The unique aspect of this Impact Assessment is not that a particular area of impact is being individually scrutinized but rather that multiple areas are being viewed simultaneously and their results used in the aggregate to evaluate the statewide and regional effects of one growth alternative versus another. Another unique aspect of the evaluation is that it requires the summation of impacts in each and every New Jersey community to determine statewide effects. The models, in most assessment areas, witness 567 community outcomes before they produce results for the statewide Impact Assessment. Further, there are multiple evaluations within each assessment category. Each of the five assessment categories has numerous fields upon which the evaluation is based.

Finally, the Impact Assessment, an encompassing investigation undertaken by a highly qualified team, has had the benefit of input from six different advisory committees. The input has both focused the overall investigation and allowed individual investigative tools to be sharpened. The Impact Assessment has benefited greatly from talented and concerned individuals who, in an advisory capacity, have shared their experience to provide insight that would not have been available without their participation. The Impact Assessment is as pluralistic as it is encompassing.

The Impact Assessment is undertaken using a series of twenty different models to formulate assessments in the five substantive areas. A series of eight case studies has also been undertaken to augment and extend the modeling effort. The models, using their data bases and forecasting routines, and additionally employing the case studies as a sounding board, determine the results of the analysis. The results of the analysis are interpreted by the study team.

The study team determines results by drawing upon information from two projected futures for statewide growth—traditional or TREND development, and Plan-inspired or IPLAN development.

These alternative futures are determined from the best retrospective information to depict future conditions based on TREND, as well as a careful appraisal and interpretation of the documents that explain IPLAN to depict a future based on the State Plan. The latter includes IPLAN itself, the infrastructure needs assessment, mapping guide, and implementation procedures. The study team has used these sources of information as well as other information on Centers and their location/form to interpret IPLAN. This other information includes regional design guidelines recommended by the Office of State Planning's Advisory Committees for size, density, floor area, and open space ratios for Centers. In addition, it includes lists of proposed Towns, Regional Centers, and Villages that are being considered by counties in the Cross-acceptance process. These lists

have been provided by the Office of State Planning. Finally, where information on Centers is not specifically available, it includes study team use of regional design criteria to develop Centers consistent with the way they have been developed in other areas.

The Pinelands and Meadowlands are treated as they have developed in the past for TREND and under a strict interpretation of their own comprehensive management plans and growth designations for IPLAN. The areas protected by CAFRA are treated historically for TREND and by State Plan land designations for IPLAN.

Each evaluation depends upon how TREND and IPLAN unfold at the community level. Household and job growth under the two alternative futures creates the demand for land, the requirements for infrastructure, the need for housing and public services, the forthcoming fiscal constraints on communities, water and air quality diminution associated with growth, and the preparation for growth (sometimes coordinated, sometimes not) by various levels of government. But which future potentially poses the least negative impacts for the communities receiving growth, as well as for those in decline? The task of the Impact Assessment is to determine this and report the findings.

The research involving the Impact Assessment is contained in two volumes. The first is *Report I: Research Strategy—Research Design, Model Descriptions, Case Study Profiles, Variable Selection*, dated 15 February 1992. An appendix to this report contains eight case studies. The present evaluation volume is entitled *Report II: Research Findings—The Analysis of TREND and IPLAN*, dated 28 February 1992. An Executive Summary is part of the present volume and is issued separately as well.

Each of the reports is ordered in the same sequence:

- ECONOMIC ASSESSMENT
- ENVIRONMENTAL ASSESSMENT
- INFRASTRUCTURE ASSESSMENT
- COMMUNITY LIFE ASSESSMENT\*
- INTERGOVERNMENTAL COORDINATION ASSESSMENT

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\* This appears as Quality of Life Assessment in *Report I*.

**IMPACT  
ASSESSMENT  
ISSUES**

## **ASSESSMENT OF THE STATE PLAN**

The Impact Assessment of the Interim State Development and Redevelopment Plan (IPLAN) involves multiple general categories of estimated impact. These include: 1. economic (loss of jobs, fiscal distress); 2. environmental (protection of frail environmental lands; air and water pollution); 3. development infrastructure (type, amount, costs); 4. community life (community satisfaction, availability and cost of housing); and 5. intergovernmental coordination (frequency and quality of contact between governments, improved coordination in decision-making).

Impacts emerge because many of the State Plan's goals, objectives, and policies ultimately take the form of rules and regulations generated by other agencies during the implementation of the Plan. Further, the same goals, objectives, and policies could appear in the form of county or municipal rules and regulations and, together with those of State agencies, potentially threaten the status quo of property values, economic growth, home rule, and community life. As such, the State Plan raises basic issues that must be thoroughly investigated before it can be implemented; thus, the need for this Impact Assessment and its associated analyses. These analyses provide the basis for rational discourse on the potential future effects of the State Plan in New Jersey. The issues that emerge in the development of a State Plan and insight to the appropriate types of analyses for their resolution are contained on the following pages.

## **THE CONTEXT OF IMPACT ASSESSMENT**

Impact assessment is important because it is believed by some that various procedures and policies of the Interim State Plan can: a) reduce economic growth in the State; b) cause local housing prices to escalate; c) destroy the equity that farmers have in their land; d) eliminate the uniqueness of established suburbs by causing them to increase their density; e) make certain residents of the State experience inferior community life by unduly exposing them to redeveloping neighborhoods; f) redefine the fabric of local government by causing unnecessary State influence over what heretofore have been local (county or municipal) decisions; and g) impinge upon a myriad of established and time-tested economic relationships that previously have been left unrestrained in a basically free economy.

These concerns have been voiced by professional groups, citizen organizations, advocacy groups, and individual residents throughout the State.

Without a full understanding of these potential problems, the Maryland State Plan was initially defeated by the Maryland State Assembly and Senate and has only recently reappeared in the form of a Growth Management Act. After listening to the comments and

concerns of home-rule advocates, home builders, chamber of commerce representatives, and others, and in the absence of an impact assessment of the plan's impacts, Maryland legislators expressed their uncertainty with enough negative votes initially to defeat the measure. In its reincarnated form, it must be evaluated much as the New Jersey State Plan is being evaluated.

In New Jersey, the Impact Assessment process has been viewed as contributing to the process of preparing the State Plan; it is not a reaction to an adopted plan. In response to this Assessment, New Jersey's State Planning Commission may choose to modify the Interim Plan to improve its potential impacts before the State Plan is adopted.

## ECONOMIC ISSUES

With the advent of the Interim State Plan, questions can be raised as to whether the Plan is injurious to the overall health of the State's economy. Further, questions can emerge dealing with related job losses and their ripple effects throughout the economy. Finally, questions can arise on the fiscal solvency of local governments. If the economy is threatened, how does the State support the basic public services that affect people's lives—namely, public safety and public education? The economic scenario might well evolve along the following lines.

*"The Interim Plan is so targeted to environmental preservation that under it, whole areas of the State will be prevented from development." . . . "Residential and nonresidential building activities spawn other economic activities that will also lie dormant if the State is stopped from pursuing its natural growth." . . . "Further, if economic activities are threatened, how is it possible to pay for growing demands on local public services?"* Thus, this fear of economic peril related to failure to keep pace with development demands, resulting in job loss and fiscal insolvency, is inevitably a portion of an Impact Assessment as a prelude to State Plan approval.

How is one able to deal with these *economic* questions? First and foremost, a firm understanding of the State's economy is essential. This is derived from the outputs of an econometric model, which provides a macro assessment of future economic conditions statewide. In addition, the workings of this type of model can interpret overall growth changes ongoing in the State. As a subroutine, population/household and employment projections are made for jurisdictions of the State. This is a beginning projection that, for New Jersey, is ultimately refined to provide projections based on history (TREND) or those based on the State Plan's objectives (IPLAN).

Two direct interpretive outputs of the locally differing population/household and employment projections of TREND versus IPLAN development may be found using

economic impact and fiscal impact models. The first converts value added in residential and nonresidential construction dollars to full-time-equivalent (FTE) construction jobs and additionally targets a share of permanent jobs to three basic land-use types: commercial office, commercial retail, and industrial. Both permanent jobs and in-state FTE construction jobs are viewed for their effects on other sectors of the economy in terms of number of employees, gross wages, and gross output.

The subroutine of the econometric model that projects population/households and employment feeds this information to a fiscal impact model,\* which converts it to the demand for public services and the costs versus revenues of providing these services in the jurisdictions where the growth has taken place.

In summary, a set of three models may be used to evaluate the *economic* issues surrounding historic (TREND) versus planned (IPLAN) development. A large econometric model predicts the State's future and alters that future if portions of the State cannot receive development under either scenario.

Economic impact and fiscal impact models, simultaneously controlled and driven by the econometric model, translate this information into the demand for primary and secondary jobs across different geographic areas and the fiscal cost-revenue implications of the service population introduced by this growth. This determines the Interim State Plan's economic effects on the overall economy and on regions of the State, as well as its economic and fiscal effects on the State's localities (municipal, county, and school districts).

## ENVIRONMENTAL ISSUES

Another whole area of impact assessment concerns *environmental* impacts. Is the Interim State Plan truly environmentally advantageous? In the absence of an affirmative answer to this question, the State may not wish to commit to a planned-growth strategy. It could be said, for instance, that the State Plan will protect wetlands and stream corridors, save forests, conserve agricultural land, reduce air pollution, reduce water consumption, and enhance water quality without really knowing by how much, or whether this could have been achieved through existing environmental controls.

The pro-environmental scenario could postulate that planned growth will accomplish all of these goals while existing development forces and patterns will plunge the State into an environmental abyss. The reality, however, is that there is an inventory of all

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\* This is actually accomplished more fully by a subroutine of another model (land capacity) that also accounts for land consumption relative to the two futures.

of these desired-to-be-protected natural features, and there are ways of measuring the polluting effects of types of development such that relative impacts of historic versus planned development can be fairly evaluated.

In order to begin to resolve these issues, inventories of lands-to-be-protected must be aggregated and integrated, and information developed on their historical consumption rates over time. There must also be some means of evaluating the effects of development on air and water pollution. These procedures of environmental impact assessment must also be reasonable in their view of what historic versus planned development can actually effect. If local air pollution is more affected by ambient air as opposed to point-source pollution, this must be understood before the issue is tackled. Further, if engineering solutions are being introduced to mitigate the effects of current land development patterns on water quality, these must be taken into account in projecting historic impacts.

To understand the effects of historic (TREND) versus planned (IPLAN) development on the environment, multiple models can be employed. The first is a land capacity model that views how much land will be consumed by development and whether there is sufficient land to accommodate development. The second is a frail environmental lands model that assesses the differences in environmentally sensitive land consumption under historic versus planned development. It accomplishes this by using historic rates of sensitive land consumption on inventories of selected frail lands and compares the results with the land-protective objectives of the Interim State Plan. This analysis is used for steep slopes, forests, and critical sensitive watersheds. Related to this is an agricultural lands model that prioritizes agricultural land and views how this land will be consumed under TREND versus IPLAN growth scenarios. The former relates to past agricultural land consumption, the latter to agricultural land preservation objectives of the State Plan.

A third model—an air pollution model—determines the air pollution effects of the two projected growth futures. It does this by inferring differences in automobile usage and trips/trip length associated with planned development's reduction of State road lane-miles, as well as through its potential for mass transit.

A fourth model, a water pollution model, focuses on levels of developed acreage under the two different development scenarios and evaluates the effects of each on stormwater runoff and other sources of water pollution.

Thus, the environmental effects of TREND versus IPLAN development can be viewed in much the same way as the alternative growth scenarios' economic effects. The approach is to specify relative environmental degradation under two different growth scenarios—traditional versus planned. This is accomplished through a series of models that measure absolute land consumption, relative frail environmental land consumption,

including agricultural lands, as well as the air and water pollution effects of two different types of growth.

## **INFRASTRUCTURE ISSUES**

When considering the Interim State Plan, questions can be raised on the ability of the Plan to effect reduced infrastructure commitments in specific areas of capital plant development (roads, utilities, schools, other public buildings, and so on), or even across all categories of infrastructure. It easily could be said that if the State Plan does not reduce the number of projected people or school children (which may or may not be good, and clearly may not initially be perceived as good), then how can it significantly reduce infrastructure costs? Don't the same number of people with basically the same kind of socioeconomic characteristics generate the same demands for roads and schools? To what degree can any of this be altered by different land-use patterns associated with TREND versus IPLAN development?

The resolution of these types of issues lies in series of models designed to interpret both road needs and transit potentials of different development densities. To the degree that higher development densities, closer-in development, and clustering are associated with planned development, road infrastructure needs and costs can be reduced.

Also affected by types of development patterns and types of housing configuration are utilities, primarily in the form of number of hookups of water and sewer lines. A water and sewer demand model may be used to calculate the annual demand for water and sewer in millions of gallons and relate this demand to both infrastructure and treatment needs. The demand for water and sewer, as well as related infrastructure and treatment, is clearly influenced by development form and housing type. To the degree that traditional versus planned development is associated with more single-family attached/multifamily and/or more cluster development, which relates directly to reduction in water demand and the number of hookups, overall infrastructure requirements and costs (water cost model and wastewater cost model) will be reduced.

Another component of the infrastructure issue is the primary and secondary educational capital plants associated with future growth. A school capital facilities model can be used for this purpose. This type of model is influenced by the required scale of new services where future development will take place, as well as by any excess capacity in the infrastructure found there. For instance, to the degree that planned versus historical development does not substantially alter the number of people or school children in the State, the major difference in school capital costs is the degree to which established service providers can be relied upon in fringe areas and excess infrastructure capital can be

consumed in already developed areas. Thus, the model to be employed here must and does distinguish between differences in: 1) location of development at the fringe between planned and historic development; and 2) the proposed usage of existing urban and closer-in suburban capital facility reserves under each scenario.

## **COMMUNITY LIFE ISSUES**

Community life issues concern the kinds of communities people will live in under traditional versus planned development. A prime component of this is access to housing and the ability to afford the housing that is ultimately found. Without information to the contrary, people could say that the Interim State Plan, through its redevelopment objectives, locates much of the State's future growth in environmental settings that are intolerable in terms of the living conditions found there. It could further be said that limiting permissible development locations for environmental goals could restrict housing development on the whole and, where it is permitted, drive up the costs of land. Both factors would contribute to a decline in quality of life related to the lack or cost burden of housing.

Community life evaluations typically scrutinize the environments of new households and jobs as well as the supply and cost of housing in these locations. A better community life includes the benefits of an acceptable environment; it also is the ability to find and afford housing.

Community life also can be looked at using modeling. A model can be used to construct a quality of life index for communities in the State by developing average scores for tax burden indices, success of school systems, recreational and cultural opportunities, and public safety measures. It ultimately can be used to determine a quality of community life measure for each community. New households and employees are introduced to these different community settings (and the quality of life index found there) according to how population and jobs will be distributed under traditional versus planned development, and a gross composite score is assigned to each scenario. Traditional and planned development are evaluated accordingly.

The differing effects of these development scenarios can be evaluated in two other models. One model compares housing demand and supply by building type and region. The second model estimates housing cost and affordability. The first evaluation is accomplished using a traditional housing demand/supply model applied to projections of household growth by area. A housing and property development cost model could incorporate the findings of research on the impact of regional growth controls on land prices, as well as the impact of Centers' diversity, to estimate the effects of the IPLAN

scenario on housing costs. These effects are then calculated in terms of an affordability index.

## **INTERGOVERNMENTAL COORDINATION ISSUES**

It is generally assumed that intergovernmental coordination will increase as a result of the Interim State Plan—that agencies of government at both the same level and at different levels will be brought into closer contact by the shared objectives of the State Plan. In the absence of looking critically at this issue, people could represent the State Plan as an extraordinary achievement in bringing together both discrete State agencies as well as various levels of government below the State level. Absent an Impact Assessment, the various intergovernmental relationships that currently exist, situations that do not require formal State ties, or cases in which State influence may interfere with or be injurious to local prerogatives, may be overlooked. In other words, if significant, coordinated intergovernmental activities are not in the offing, why surrender a share of home rule?

Impact assessment in this area can employ a questionnaire to determine the degree to which State agencies coordinated their activities prior to the inception of the Plan, as well as increases in these activities that were introduced by the advent of the Preliminary State Development and Redevelopment Plan and the Interim State Plan. A similar evaluation could take place of the frequency of contact and coordination of land development activities at the county and local levels before and after the State Plan. The results of this questionnaire can establish differences in: (a) frequency, (b) subject matter, (c) quality of contact, and (d) influence on land-development decisions before and after the arrival of the State Plan in its various forms.

## **CONCLUSION**

There's no magic potion for resolving issues in state planning. Indeed, there are individuals and advocacy groups for whom issues are impossible to resolve. The analyses presented in the Impact Assessment of the New Jersey Interim State Development and Redevelopment Plan provide the building blocks necessary to begin the process. Clearly, this is a necessary step prior to Plan implementation.

There are ways of clarifying the confusion surrounding the short- and long-term effects of planned development. There are established models and data bases that delve deeply into each of the concerns and issue streams of numerical outputs in an effort to quantify alternative futures. Yet there is no established formula for constructing the political consensus necessary to bring the State Plan for New Jersey to fruition, nor can an elixir be synthesized that will be palatable to everyone across the far reaches of the State. The Impact Assessment presented in this volume sets the table with the menu of items that must be addressed prior to enacting the State Plan.